These results are in line with the Spanish clinical guidelines for RA which recommend the use of tumor necrosis factor inhibitors as first-line treatment after failure with disease-modifying antirheumatic drugs.

PMS69

BUDGET IMPACT ANALYSIS OF APREMILAST IN PATIENTS WITH PSORIATIC ARTHRITIS IN SPAIN

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OBJECTIVES: This analysis was designed to estimate the budget impact following the introduction of apremilast in the treatment of active psoriatic arthritis (PsA) for adult patients who have failed to respond to or are intolerant of disease-modifying antirheumatic drugs (DMARDs) in Spain. **METHODS:** A budget impact model was developed to estimate healthcare costs for adults with PsA during a 3-year period from the NHS perspective. Target population was defined based on epidemiological criteria; PsA prevalence (0.2%) and proportion of patients on biologic treatment (13.5%) were applied to national adult population statistics. Addition of apremilast to the therapeutic arsenal (adalimumab, etanercept, golimumab, infliximab, ustekinumab) was explored. From the annual eligible population of PsA patients (N=8,122), 5% (n=406), 11% (n=893), and 18% (n=1,462) were assumed to be treated with apremilast for the first, second, and third year, respectively. A local expert panel provided detailed resource consumption information. Total cost included drug acquisition based on drug doses from the summaries of product characteristics (ex-factory price with mandatory deduction), administration (parenteral drugs), and monitoring costs. Unitary costs (€, 2014) were obtained from national databases. **RESULTS:** The total budget for the scenario without apremilast was €101,104,837, €101,082,349, and €100,875,977 in the first, second, and third year, respectively. The pharmaceutical cost represented 95% of this total cost. Following apremilast introduction, total budgets were reduced by €1,244,342, €2,735,080, and €4,438,438 in the first, second, and third year, respectively. Incremental costs per patient comparing the scenario with apremilast vs. the scenario without apremilast were €–153.21 (–1.23%), €–336.77 (–2.71%), and €–546.50 (–4.40%) in the first, second, and third year, respectively. **CONCLUSIONS:** Apremilast treatment for PsA patients who have failed to respond to or are intolerant of DMARDs would imply a budget impact decrease on overall healthcare expenditure for the NHS.

PMS70

COST-UTILITY ANALYSIS OF APREMILAST FOR THE TREATMENT OF PSORIATIC ARTHRITIS IN THE ITALIAN SETTING

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OBJECTIVES: To determine the cost-effectiveness of apremilast for the treatment of active psoriatic arthritis for adult patients who failed to respond to or are intolerant to disease-modifying antirheumatic drugs in Italy. **METHODS:** A Markov state-transition cohort model was adapted to the Italian setting to compare costs and quality-adjusted life-years (QALYs) from 2 treatment sequences: apremilast, adalimumab, etanercept, infliximab, and best supportive care (BSC) versus adalimumab, etanercept, infliximab, and BSC. The analysis time horizon was 40 years using a 28-day cycle length. The perspective of the Italian National Health Service (NHS) was chosen. Treatment efficacy data (based on American College of Rheumatology [ACR] 20 criteria and Psoriasis Area and Severity Index [PASI] 50/75/90 response rates) were derived from a network meta-analysis including 13 clinical trials. Resource use and unit costs were derived from Italian standard sources. Frequency of screening and testing for each treatment was derived from real-world data. Utility weights associated with PASI states were derived from a published study. A 3% discount rate was applied to costs and benefits. Both deterministic and probabilistic sensitivity analyses (PSA) were performed. **RESULTS:** In the base case, the sequence including apremilast resulted in an incremental cost per QALY gained of €32,263. Specifically, there was an increase of €13,511 (€182,209 vs €168,699) with an incremental gain of QALYs of 0.42 (9.57 vs 9.15) over 40 years. Base-case results were robust regarding changes in cost and efficacy data. Results were more sensitive to changes in utility weights, discount rates, and time horizon. The PSA confirmed that the apremilast sequence was cost-effective in the majority of the simulations at a willingness to pay of €50,000 per QALY. **CONCLUSIONS:** This analysis suggests that the use of apremilast for the treatment of psoriatic arthritis may represent a cost-effective option for the Italian NHS.

PMS71

COST-EFFECTIVENESS OF ZOLEDRONIC ACID VERSUS ALENDRONIC ACID IN THE TREATMENT OF OSTEOPOROSIS IN POSTMENOPAUSAL EGYPTIAN PATIENTS: DECISION ANALYSIS

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OBJECTIVES: To evaluate from the Ministry of Health perspective, over a five-year period, the cost-effectiveness of using zoledronic acid 5mg compared to that of alendronic acid in the treatment of osteoporosis in postmenopausal Egyptian patients. **METHODS:** A Markov model with five mutually exclusive health states (Well, hip fracture, spine (vertebral) fracture, wrist (non-vertebral) fracture, and death) was developed.The transition probabilities between the health states were derived from a previously published source. Health state utilities and major adverse events were obtained from published sources. Direct medical costs were obtained from the Ministry of health list. Costs and effects were discounted at 3.5% annually. One way sensitivity analyses were conducted. **RESULTS:** Across the overall population, the total QALYs of the Zoledronic acid group were estimated to be 194.4 compared with 194.1 for the Alendronic acid group, which resulted in a difference of 0.33 QALYs. The total costs for the Zoledronic acid group and Alendronic acid group were LE 215,232 and LE 215,087 respectively. These costs yielded an ICER of LE 435 for the Zoledronic acid group. The odds ratio of zoledronic acid on vertebral & non-vertebral fractures was found to have the greatest impact on the results. **CONCLUSIONS:** Compared with our willingness-to-pay threshold stated by world health organization for middle and lower income countries, Zoledronic acid is cost-effective; and most likely to result in an ICER lower than the threshold limit. Thus, the new treatment (Zoledronic acid) should be recommended in the Ministry of health list.

PMS72

COST-EFFECTIVENESS ANALYSIS OF CANACINUMAB IN THE TREATMENT OF PATIENTS SUFFERING FROM SYSTEMIC JUVENILE IDIOPATHIC ARTHRITIS IN RUSSIAN FEDERATION

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OBJECTIVES: To conduct the cost-effectiveness analysis (CEA) of canakinumab treatment group versus tocilizumab treatment group with systemic juvenile idiopathic arthritis (SJIA). **METHODS:** CEA was used to compare canakinumab treatment of patient group with previous inadequate response to tocilizumab versus tocilizumab treatment patient group which was subsequently switched to canakinumab. This analysis based on comparing treatments with usage of American College Rheumatology (ACR) criteria: ACR 30, 50, 70, 90 according to data of real clinical practice that were estimated within one year of therapy. Cost structure included following: drug treatment and administration costs, inpatient and outpatient visits, correction of adverse events and required monitoring laboratory tests. **RESULTS:** Cost-effectiveness ratios (CER) of tocilizumab and canakinumab treatment group was estimated for ACR 30 as 4,043,444 RUB/66,173 EUR and 15,813,187 RUB/258,791 EUR, respectively; for ACR 50 as 4,043,444 RUB/66,173 EUR and 17,570,208 RUB/287,546 EUR, respectively; for ACR 70 as 7,188,345 RUB/ 117,641 EUR and 19,284,375 RUB/315,599 EUR, respectively; ACR90 as 25,878,040 RUB/ 423,508 EUR and 21,962,760 RUB/359,432 EUR, respectively. **CONCLUSIONS:** According to results of CEA costs per unit of effectiveness for treatment with canakinumab were higher in most cases. However, CER for ACR 90 as more effectiveness criteria was lower for canakinumab treatment group then in tocilizumab treatment patient group who were subsequently switched on canakinumab. It was determined that treatment with canakinumab was dominant method in comparison with tocilizumab treatment for ACR 90 criteria.

PMS73

ASSESSMENT OF TOFACITINIB FOR RHEUMATOID ARTHRITIS FROM THE PERSPECTIVE OF THE BRAZILIAN HEALTHCARE SYSTEM

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OBJECTIVES: To assess the cost-effectiveness ratio of tofacitinib when compared to alternative treatment strategies currently available for moderate to severe rheumatoid arthritis (RA) from the perspective of the Brazilian healthcare system. **METHODS:** A patient-level microsimulation model with a six-month length has been developed to measure the lifetime cost and quality-adjusted life-years (QALY) associated with RA treatment and disease progression. Patients' outcome ranged based on the HAQ score. In the model, only severe adverse events were taken into consideration. The model compared treatment sequence with tofacitinibe with a comparator sequence without tofacitinibe in the patient care pathway following the 2014 Brazilian Therapeutic Guidelines for RA. The costs related to drug treatment and to patient follow-up were taken into consideration. For such, the list price published by the Brazilian agency was used. Monitoring standards were defined by specialists and funded by using the list of procedures, orthoses, and prostheses from SUS [Brazilian Unified Health System] (SIGTAP) and the website for healthcare information (TABNET) from the Ministry of Health. The probability sensitivity analysis was calculated having 50 first-order iterations and 500 second-order iterations, thus yielding a total of 25,000 iterations. An amount of BRL 81,667 was adopted as a limit of willingness to pay – equivalent to three times the national GDP per capita (2014). **RESULTS:** In all scenarios, the treatment arm including tofacitinibe was shown to be dominant with lower costs and greater effectiveness – saving up to BRL 77,271.97. The probability sensitivity analysis (PSA) was also completed showing that tofacitinibe likely to be 52% more effective, 92% more economical and 87% more cost-effective for one of the scenarios. **CONCLUSIONS:** The inclusion of tofacitinibe into the treatment strategy for moderate to severe RA is a dominant strategy for Brazilian healthcare system. These results were shown to be robust after completing PSA.

PMS74

COST-UTILITY ANALYSIS OF CERTOLIZUMAB PEGOL FOR THE TREATMENT OF ACTIVE PSORIATIC ARTHRITIS IN GREECE

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OBJECTIVES: To evaluate certolizumab pegol (CZP) relative to the other anti-TNFs, etanercept, infliximab, adalimumab and golimumab, and standard of care (SoC), among patients with active psoriatic arthritis (PsA), previously unresponsive to conventional disease-modifying antirheumatic drugs (cDMARD). **METHODS:** A Markov model was used to simulate the lifetime progression of active PsA patients from treatment onset onwards. The model assumed that non-responders stop treatment and move to SoC. At treatment initiation, a 12- or 24-week treatment response assessment period was assumed. Long-term treatment withdrawal and patient mortality rates were obtained from the literature. SoC was defined as a mix of cDMARDs based on expert advice. Clinical efficacy was modeled in terms